

In the Claims

1. A redundant fuel system for use in conjunction with a primary fuel system, the primary system including an air manifold coupled to engine cylinders and to a central plenum, the primary system providing separate fuel injectors for each cylinder during normal operation of the primary fuel system, the secondary system comprising:
 - 5 fuel input device for delivering fuel to said plenum; and
 - a control for preventing flow of fuel to said supply device during normal operation of said primary fuel system.
2. A fuel system, as claimed in claim 1, wherein said fuel input device comprises a fuel injector.
3. A fuel system, as claimed in claim 1, wherein said control comprises a solenoid.
4. Apparatus as claimed in claim 3 further comprising a flow rate control valve positioned between said solenoid and said supply device.
5. A fuel system, as claimed in claim 4, wherein said flow rate control comprises a barrel valve.
6. A fuel system, as claimed in claim 1, further comprising first and second separate pumps for providing pressurized fuel to said fuel input device.
7. Apparatus as claimed in claim 6 wherein said first and second pumps are series-connected.
8. A redundant fuel system for use in conjunction with a primary fuel system, the primary system including an air manifold coupled to engine cylinders and to a central plenum,

the primary system providing separate fuel injectors for each cylinder during normal operation of the primary fuel system, the secondary system comprising:

- 5 fuel input means for delivering fuel to said plenum; and
 a control means for preventing flow of fuel to said supply device during normal
operation of said primary fuel system.

9. A method for redundant fuel supply for an internal combustion engine,
comprising:

- providing a primary fuel system, the primary system including an air manifold coupled to
engine cylinders and to a central plenum, the primary system providing separate fuel injectors for
5 each cylinder during normal operation of the primary fuel system,

 providing a fuel input device for delivering fuel to said plenum;
 providing a control for preventing flow of fuel to said supply device during normal
operation of said primary fuel system;

- 10 automatically configuring said control to an open position, to provide fuel to said fuel
input device, following failure of said primary fuel system.

10. An internal combustion fuel system comprising:

a fuel bus for providing pressurized fuel to a plurality of fuel injections;

a header tank for obtaining fuel for providing to said fuel bus;

at least a first fuel tank coupled to said header tank for providing fuel to said header tank;

5 and

a return line for returning fuel from said fuel bus to said header tank.

11. An internal combustion fuel system, as claimed in claim 8, wherein at least a
second fuel tank is coupled to said header tank for providing fuel to said header tank.

12. An internal combustion fuel system, as claimed in claim 8, wherein at least a first
pump provides flow from at least said first fuel tank to said header tank.

13. An internal combustion fuel system, as claimed in claim 10, further comprising at least a first flow meter for measuring rate of flow of fuel into said header tank from said pump.

14. A redundant internal combustion fuel system and apparatus substantially as described and depicted herein.